

Status Of Claims

Claims 1-24 (cancelled).

Claim 25 (previously amended): A refuse collection vehicle having a front and a rear and comprising:

- (a) a frame;
- (b) a collection bin mounted on the frame;
- (c) an apparatus for acquiring, lifting and transferring a container so as to deposit the contents of the container in the collection bin said apparatus comprising:
 - (i) a base link having a first end and a second end, which base link is mounted on the collection vehicle;
 - (ii) a container grab assembly that is adapted to capture the container;
 - (iii) an upper link having a first end and a second end;
 - (iv) a reach link having a first end and a second end, said first end being pivotally attached to the first end of the base link and said second end being pivotally attached to the upper link at an intermediate position between the first end and the second end;
 - (v) a lift arm having a first end and a second end, said first end being pivotally attached to the grab assembly;
 - (vi) a reach cylinder having a base end and a rod end, with one of such ends being pivotally attached to the second end of the base link and the other being pivotally attached to the second end of the upper link;

- (vii) a lift cylinder having a base end and a rod end, with one of such ends being pivotally attached to the base link at an intermediate position between the first end and the second end and the other being pivotally attached to the second end of the lift arm.
- (d) a collection compartment that is pivotally mounted on the rear of the vehicle;
- (e) a storage compartment that is mounted on the frame between the collection bin and the collection compartment;
- (f) a packer blade that is mounted within the collection compartment;
- (g) means for moving the packer blade within the collection compartment so as to move refuse from the collection compartment into the storage compartment.

Claim 26 (previously amended): The refuse collection vehicle of claim 25 wherein the apparatus for acquiring, lifting and transferring a container so as to deposit the contents of the container in the collection bin includes:

- (a) said reach cylinder having:
 - (i) a base end and a rod end, with one of such ends being pivotally attached to the second end of the base link and the other being pivotally attached to the second end of the upper link;
 - (ii) an extend port through which hydraulic fluid may be introduced to extend the rod end;
 - (iii) a retract port through which hydraulic fluid may be introduced to retract the rod end;
- (b) said lift cylinder having:

- (i) a base end and a rod end, with one of such ends being pivotally attached to the base link at an intermediate position between the first end and the second end and the other being pivotally attached to the second end of the lift arm;
 - (ii) an extend port through which hydraulic fluid may be introduced to extend the rod end;
 - (iii) a retract port through which hydraulic fluid may be introduced to retract the rod end;
- (c) means for directing hydraulic fluid in parallel flow to the extend port of the reach cylinder and extend port of the lift cylinder to move the grab assembly from a first position adjacent to the base to a second position adjacent to the container;
- (d) means for directing hydraulic fluid in parallel flow to the retract port of the reach cylinder and extend port of the lift cylinder to move the grab assembly from the second position adjacent to the container to a third position adjacent to the collection bin;
- (e) means for directing hydraulic fluid in parallel flow to the extend port of the reach cylinder and retract port of the lift cylinder to move the grab assembly from the third position adjacent to the collection bin to the second position;
- (f) means for directing hydraulic fluid in parallel flow to the retract port of the reach cylinder and retract port of the lift cylinder to move the grab assembly from the second position to the first position.

Claim 27 (original): The refuse collection vehicle of claim 25 wherein the apparatus for acquiring, lifting and transferring a container so as to deposit the contents of the container in the collection bin includes:

- (a) an upper link having a first end, a second end and a first and second intermediate positions between the first end and the second end, wherein said first intermediate position is nearer to the first end than the second end;
- (b) a slave cylinder having a base end and a rod end, with one of such ends being pivotally attached to the reach link at an intermediate position between the first end and the second end, and the other being pivotally attached to the upper link at the first intermediate position;

and wherein the second end of the reach link is pivotally attached to the upper link at the second intermediate position.

Claim 28 (original): The refuse collection vehicle of claim 25 wherein the grab assembly includes:

- (a) a side support arm having a first end and a second end, the first end of which is attached to the lift arm;
- (b) a gear box that is mounted on the second end of the side support arm and including a left gear and a right gear that are meshed together;
- (c) a right shaft on which the right gear is mounted;
- (d) a left shaft on which the left gear is mounted;
- (e) a drive link having a first end and a second end, with said first end being mounted on the right shaft;

- (f) a left grabbing arm which is mounted on the left shaft;
- (g) a right grabbing arm that is mounted on the right shaft;
- (h) a grabber cylinder having a base end and a rod end, with one of such ends being pivotally attached to the first end of the side support arm and the other being pivotally attached to the second end of the drive link.

Claim 29 (original): The refuse collection vehicle of claim 28 wherein the relative positions of the drive link, the left and right gears and the left and right grabbing arms are such that retraction of the rod of the grabber cylinder from an extended position to a retracted position will cause the grabbing arms to close from an open position to a grab position.

Claim 30 (original): The refuse collection vehicle of claim 28 wherein:

- (a) the gear box is enclosed and has a first side and a second side;
- (b) the right shaft extends through both the first and second sides of the gear box;
- (c) the left shaft extends through the second side of the gear box;
- (d) the second end of the drive link is mounted on the right shaft on the first side of the gear box;
- (e) the right grabbing arm is mounted on the right shaft on the second side of the gear box;
- (f) the left grabbing arm is mounted on the left shaft on the second side of the gear box.